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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/676,090	10/02/2000	SOICHIRO KAWAKAMI	839.438	4964

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FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

MAPLES, JOHN S

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/676,090

Applicant(s)

KAWAKAMI ET AL.

Examiner

John S. Maples

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-19 and 26-38 ~~is/are~~ are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2 and 26-37 ~~is/are~~ are allowed.
- 6) ☒ Claim(s) 1, 3-8, 10-19 and 38 ~~is/are~~ are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☒ Other: Reasons for Allowance.

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1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 3-8, 10-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. (New Rejection)

There is no antecedent basis for the term "pair" found in line 3 of claim 1. Claims 3-8 and 10-19, dependent on claim 1, fall therewith.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 5, 6, 10, 19 and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by JP-11-260320. ('320) (New Rejection)

Reference is made to pages 2, 7, 10, 12 and 13 of '320 along with Figures 1 and 2 for the disclosure of the lithium secondary battery housed in an aluminum concave member 5 with a metal cover 7. The two electrodes 1, 3 are welded via conductors 6, 9, respectively, to the cover at portions 8, 10. It is inherent that there is insulating material around the weld sites on the cover because the battery would not function without the same. Figure 2 shows the trapezoidal form while the inclination angle is taught by the same. In view of the dimensions set forth on pages 12-13 of '320, the distance in claim 10 is met by this teaching. Finally, because the battery in the '320 reference is a lithium secondary battery, the anode must necessarily be capable of alloying with lithium.

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over '320 in view of Noh-US 6,387,567. (Noh)

The patent to '320 sets forth all of the claimed subject matter except for the cover being formed of the specific metallic material set forth in claim 3 and for the size of the collar portion. Noh teaches in column 1, line 66 through column 2, line 13, an aluminum upper and lower case for housing a lithium secondary battery. To have included in the teachings of '320 an aluminum cover as shown in Noh would have been obvious to one of ordinary skill in this art at the time the invention was made because the same would allow easy welding of the same to the other housing portion. The collar portion in '320 is 5 mm. The recitation of the width of the collar portion is deemed an obvious design expedient to one of ordinary skill in this art especially in view of the fact that if one desired to insert the battery in '320 in a small, confined area, cutting down the collar size of this battery would have been envisioned. In any event, size is not a patentable feature-see In re Aller, 105 USPQ 233.

7. The following is an examiner's statement of reasons for allowance: none of the prior art of record teach the rechargeable lithium battery of claim 2 where a battery body is housed between two sealing members, which sealing members are concave. The two members include collar portions that are welded to one another and either one of the sealing members include dual terminals that respectively connect to the anode and cathode of the battery body wherein the one

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sealing member has an insulating portion for insulating the terminals. None of the art discloses the dual concave sealing members including the collars as set forth in the claim limitations of claim 2.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John S. Maples whose telephone number is 571-272-1287. The examiner can normally be reached on Monday-Thursday from 6:15-3:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John S. Maples
Primary Examiner
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JSM/9-7-2004